

ABSTRACT OF THE DISCLOSURE

Pulsed light of predetermined wavelengths or modulated light of predetermined frequencies from a light source 5 is injected into a scattering medium 1 as a measured object and output light therefrom is detected by a photodetector 7. Further, measuring methods and apparatus are configured so as to process and compute internal information by a signal processing unit 8 and an computation processing unit 9, and the internal information of the scattering medium 1 is obtained by calculating the difference between absorption coefficients by use of the time integrated spectroscopy (TIS method) and the phase modulation spectroscopy (PMS method) based on the MBL law in accordance with a spectroscopy method (MVS method) making use of a mean pathlength and a variance, or physical quantities equivalent thereto. This enables the internal information of the scattering medium to be measured accurately and quickly.